COST ASSESSMENT DATA ENTERPRISE

FlexFiles

The Future of Cost Analysis

FlexFiles: Objectives

A Win-Win Government and Industry Partnership

Today's Shortcomings

CCDR Data

- Time consuming to industry
- No details below the CCDR functional labor categories
- Allocations are not transparent
- Limited Data sampling over time
- Allows for human error

Ad-Hoc Data Calls

- Time consuming to industry
- Requires burdensome site visits
- Limited Access to Data
- Allows for human error

The FlexFile Solution

Increase Efficiency:

- Collect data according to the contractor's management structure
- Removal of legacy 1921 forms
- Reduce ad hoc/supplemental government data collection efforts
- Much easier and less time consuming for Industry – allows them to reduce back end support
- Automation: data flows directly from contractor systems into ours

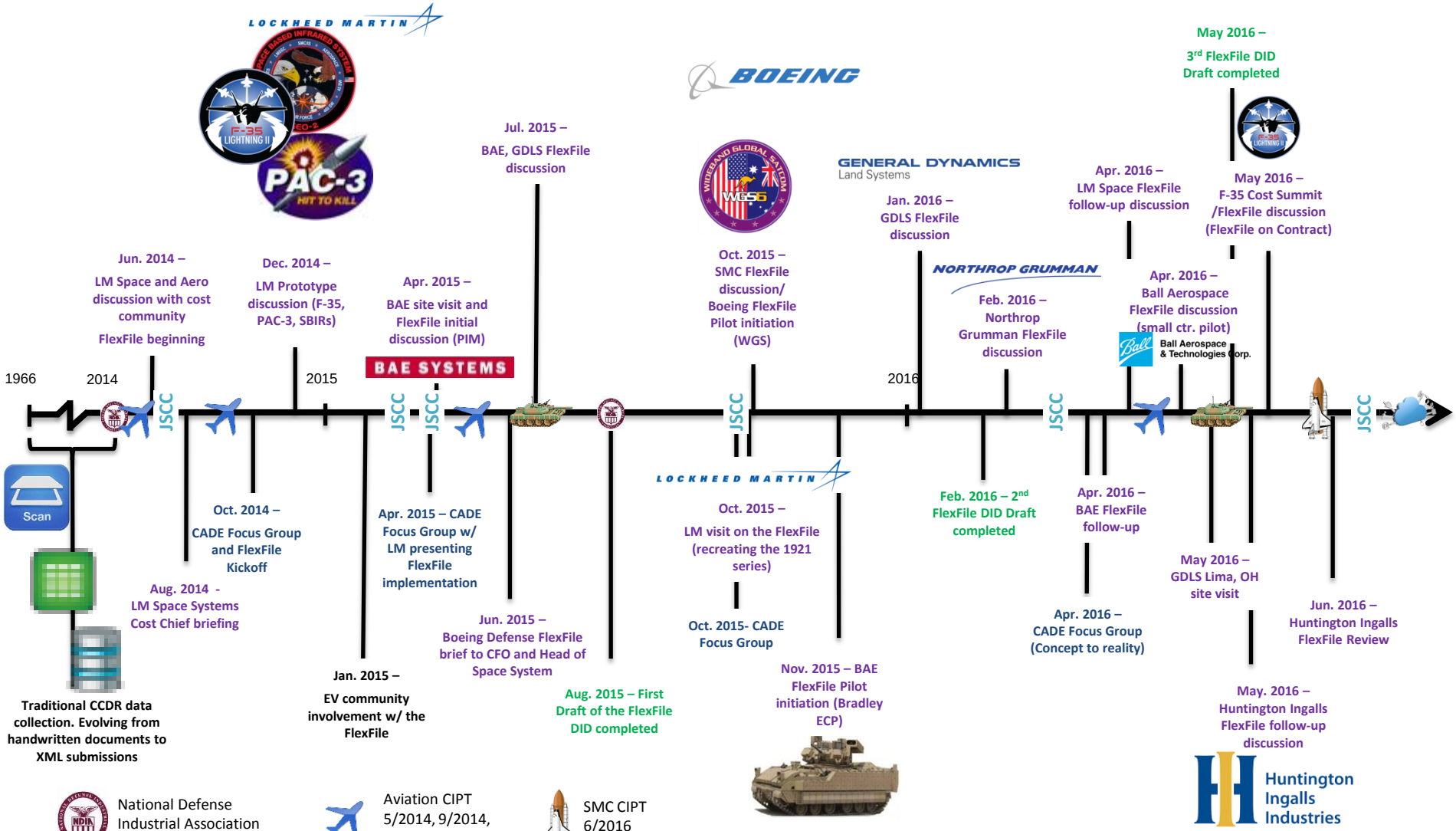
Improving Data Quality:

- Eliminate Human Error/Subjectivity
- Collect raw data, and use technology to eliminate arbitrary allocations and errors
- Consistent application of Mil-STD-881C to both EV and CSDR data – data Alignment
- Review and mapping pre-contract award

Ensure Completeness:

- Provides much more insight and analysis flexibility
- Annual submissions
- Receive data over time
- Include cost and supporting technical data

History of the FlexFile Effort



Merging Two Different Data Use Cases

Analysts Focused on Single Program:

- Requires detailed understanding of one program
- Develops & defends programs budget submissions
- Supports PM, FM, Logistics, & contracting officer
- Needs to talk contractor's language

VS

Analysts Focused on Early Alternatives and/or Independent Estimates:

- Requires general understanding of many programs
- Discerns highest effectiveness alternatives from different solutions
- Evaluates realism of budget submissions in context of broader historical experience
- Needs to compare systems from many contractors/programs

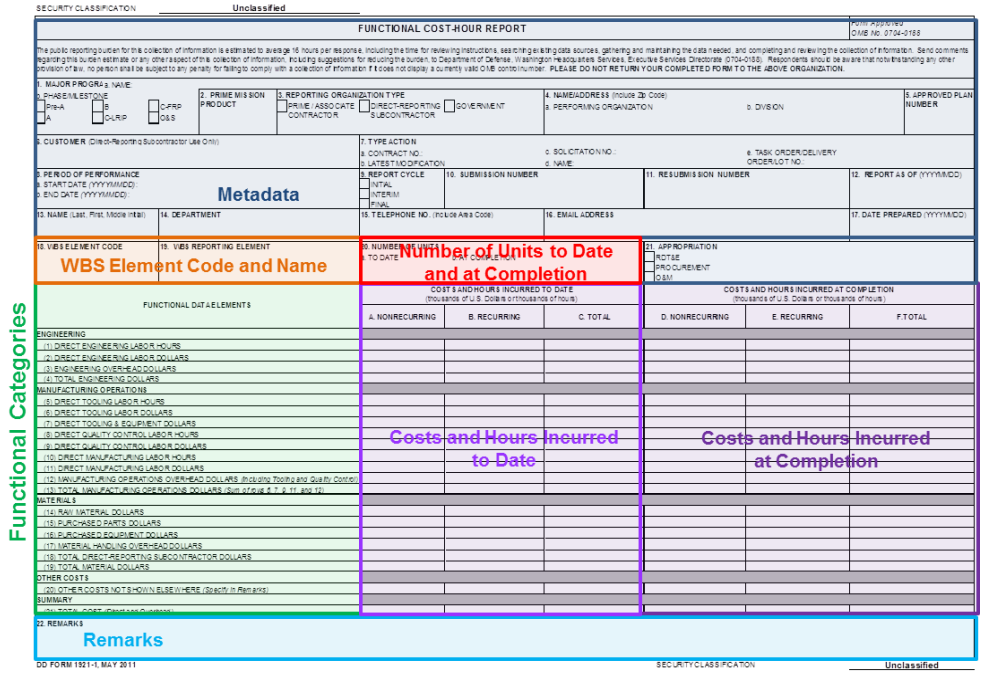
Needs: Detailed data on one specific program over time

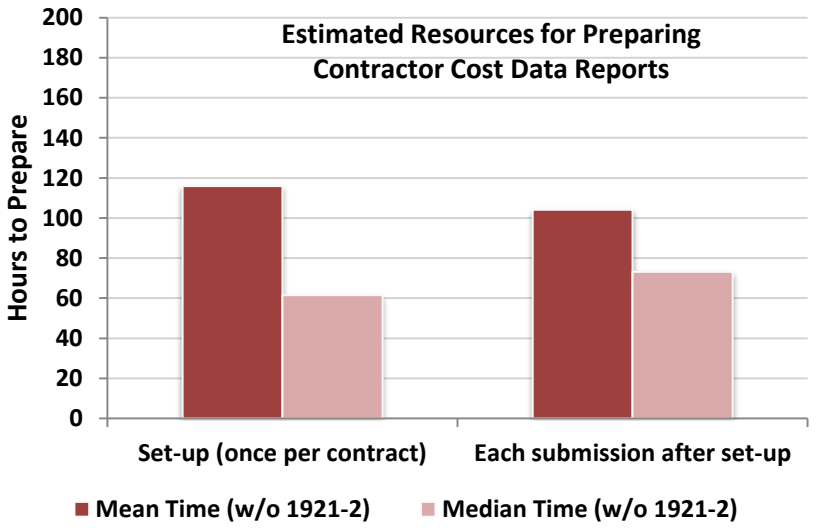
Needs: Translatable data across many programs over time

The cases are dissimilar, but not mutually exclusive.
A program cost analyst may be asked to show comparisons, a generalist may need to dig into detailed data to understand what's going on over time.

Today's Burdensome 1921 Process

1921, 1921-1 formatted CCDRs today require an average of *533 hours* per contract, assuming set-up and 4 reports



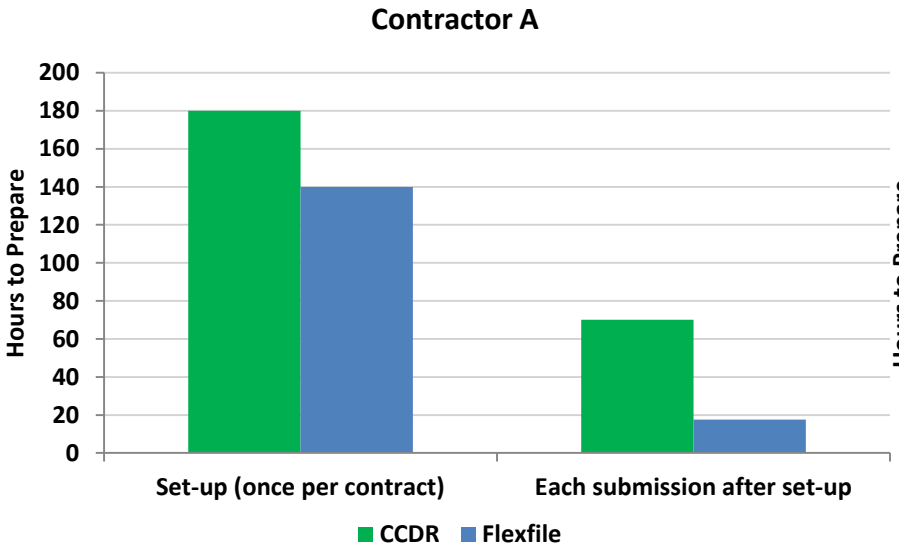


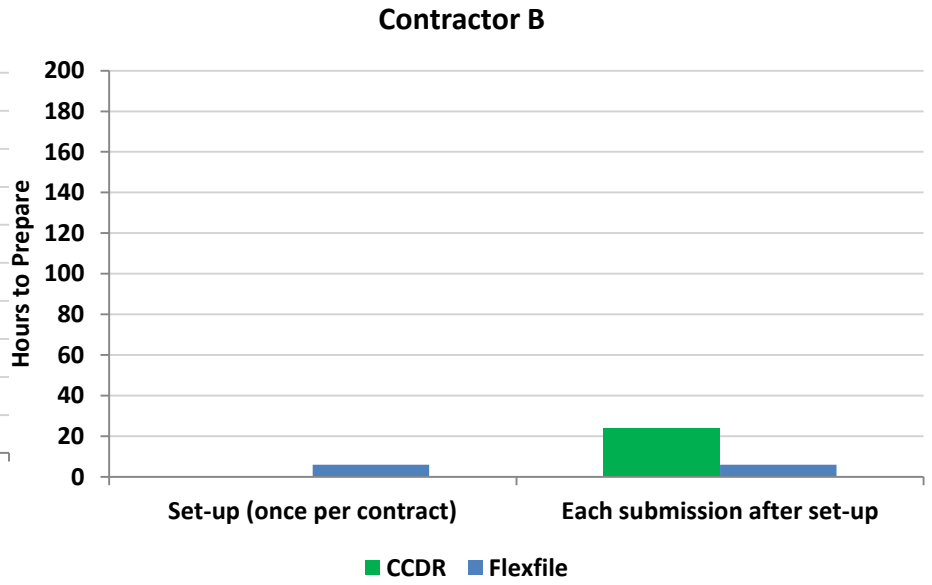
This is how we have collected contractor cost data for nearly 50 years

- Based on 2012 IDA Study *Estimated Resources for Preparing Contractor Cost Data Reports* [29 Responses]
- Data shows preparation time for WBS dictionary, 1921, and 1921-1
- When 1921-2 required, increased [median] set-up time by 25 hours and submission time by 60 hours

Efficiencies Realized

Less time to produce a FlexFile than a CCDR report





Contractor A:

- Complex program requiring post-extraction allocations
- FlexFiles covers 1921 & 1921-1
- Provided enough detail to replace 1921-2

Contractor B:

- Relatively simple program: did not require post-extraction allocations
- Provided manufacturing floor hours report
- Had automated CCDR reporting with scripts
  (a best case that won't apply to all contracts)

FlexFile DID Overview (May/August 2016)

FlexFile Draft DID (May/August 2016)

A *WBS Dictionary & Remarks*

WBS Index
Definitions by WBS
Cost Content
Work Content
Supplier & GFE elements
Contractor Remarks, Comments by WBS Element
Direct-Reporting Subs

B *Metadata*

Program Name
Contract #
Approved Co-Plan #
Contractor Name, Location, POC
As of Date
Submission Event Name
Phase
Report Type

C *Contractor Cost Data Report*

Unallocated Actual Costs & Hours
WBS, Control Account, Work Package Data by Month
Recurring vs. Nonrecurring
CLIN & Lot
Functional Rate (Gov & Internal)

D *Contractor Cost Data Field Dictionary*

Contractor Internal Accounting Data Field Descriptions

E *Allocation Methodology*

Contractor's Distribution of Unallocated Actual Costs
Unit/Lot Level Allocation

As required by Co-Plan

F *Estimates at Completion*

Estimates at Complete (EAC) by WBS Element (as required by Co-Plan)

G *Supplemental Information*

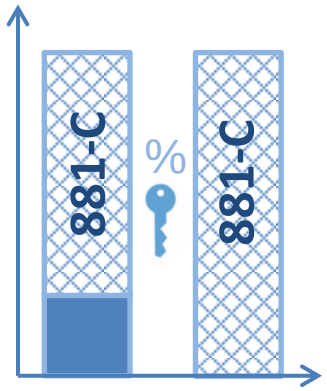
MRP Floor Hours Report

FlexFile Data Group C: Contractor Cost Data Report

Actual Cost & Hours To Date

- **CLIN**
- **Recurring-Time**
  Recurring-Qty
  Nonrecurring
- **Contractor Functional Labor and Material Categories (Direct & Indirect)**
- **Product Structure:**
  1. **Co-Plan WBS**
  2. **Native Structure:**
     a. Control Account
     b. Work Package
- **Functional Structure (OBS)**
- **Time Period:** Time Phased by Month
- **Government Functional Labor and Material Categories (Direct & Indirect)**
- **Internal CTR Tags**
- **Lot Number (Touch Labor)**

FlexFile Data Group E: Allocation Methodology



Insight into Cost Accounts & Unallocated Data & Allocation Methodology

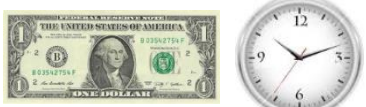
- An Allocation is defined as any modification to the data performed by the contractor after extraction from their information system(s)
- The Allocation Methodology provides the rationale for the contractor's distribution of unallocated costs to the WBS elements as specified in the Co-Plan.

Allocations to:

- WBS elements, Recurring vs. Nonrecurring, functional labor category or unit/lot level allocations
- Assigned to the lowest level WBS element

FlexFile Data Group F: Estimates at Complete

Cost & Hour Estimates At Completion



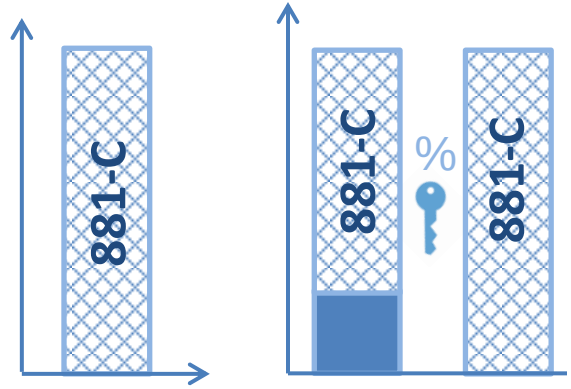
- **Contractor Functional Labor and Material Categories (Direct & Indirect)**
- **WBS Element Code & WBS Element Name** (as required by the Co-Plan; baseline discussion starts level 4)
- **Recurring-Time**
  Recurring-Qty
  Nonrecurring

FlexFile Pilots and Path Forward

FlexFile Evolution

Summer 2014 – Summer 2015

SEP – DEC 2015



Concept Definition

LOCKHEED MARTIN

Insight into Cost Accounts & Re-Create 1921

LOCKHEED MARTIN
(LRIP Allocated Program)

BAE SYSTEMS
(Development Program)

Insight into Cost Accounts & Unallocated Dat & Allocation Methodology

BOEING
(Production Program with Allocation Table

Round 1 Pilots
(Aug. 2015 DID)

August 6, 2015: Developed FlexFile DID for pilots & feedback from government and industry:

- Established Process for FlexFile prototypes with industry partners

Creation of working-level government teams:

- CAPE/DCARC leadership socialized pilots with contractor/government leadership
- Government teams reviewed data/compared with other reports

Identification of pilot programs with Lockheed, Boeing, and BAE Systems

- Discussed current CCDR generation practice & data systems with contractors
- Mapped instruction data fields to contractor data fields in 4-6 hour meetings w/contractors
- Reviewed LM data provided in Sep 2015
- Boeing/BAE generated FlexFile and provided walk-through by telecon

Instruction feedback/lessons learned folded into FlexFile Pilot Round 2 draft DID, dated February 5, 2016

Contractor 881C Cost Accumulation | Contractor Unallocated Total Cost Bins | Government Analyst Allocation

Path to FlexFile

Summer 2014 – Summer 2015

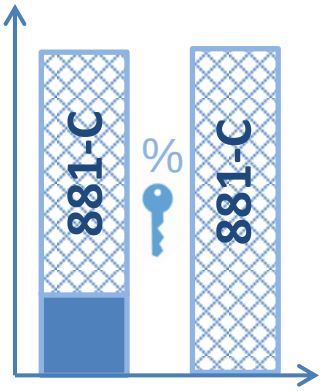
Concept Definition

September – December 2015

Insight into Cost Accounts & Re-Create 1921

(LRIP Allocated Program)

(Development Program)



Insight into Cost Accounts & Unallocated Data & Allocation Methodology

(Production Program with Allocation Table)

FEB – AUG 2016

Round 2 Pilots:
- Small Ctr
- Sustainment
- Ship and WTV

Process Oriented WBS

MAR – AUG 2016

IT Development

XML Schema design

Software App Dev
- XML Ingest
- Data export

Future

Allocation and mapping matrix provided for contractor and government analysts

Once we can prove through the pilot that a program can submit a FlexFile with an allocation matrix – we are ready to work with you to replace the CCDR requirement with a FlexFile

FlexFile Critical Path

CRAWL

June 2016 – December 2016

-Tailored FlexFile DID

- XLS FlexFile submission

- Recreate 1921, -1; Consistent w/-2

Immediate change that can easily be executed

WALK

January 2017 – June 2017

-Approved FlexFile DID

- Define FlexFile XML schema

Near-term change that can be executed once processes are streamlined

RUN

July 2017 - Future

- XML FlexFile submission

- 1921-T submission

Long-term change executed by a mature organization